## DESCRIPTIVE ABSTRACT

invention relates to an on-chip laboratory comprising a fluidic network made in a substrate, a fluid inlet orifice connected to the 5 fluidic network and a fluid outlet orifice connected to the fluidic network. The substrate comprises a planar layer (53) in which the fluidic network and electronebulization nozzle (65) are made, the electronebulization nozzle overhanging relatively to the remainder of the substrate (51, 52) and comprising 10 a channel (64), one end of which is connected to the fluidic network and the other end of which forms said fluid outlet orifice, the channel being fitted with electrical conduction means (59) forming at least one 15 electrode.

Fig. 6D